UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 01/09/2009

Morey B. Wildes Davidson Davidson & Kappel 14th Floor 485 Seventh Avenue New York, NY 10018 EXAMINER
TRIEU, THERESA

ART UNIT PAPER NUMBER

DATE MAILED: 01/09/2009

3748

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKIET NO.
 CONFIRMATION NO.

 10/502/520
 04/17/2006
 Kerstin Rosenkranz
 588.1062
 7957

TITLE OF INVENTION: PUMP WITH RADIAL PACKING RING

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(8) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 04/09/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| INSTRUCTIONS: This appropriate. All further a indicated unless correcte maintenance fee notificat | form should be used I correspondence including d below or directed off ions | for transmitting the ISSI ing the Patent, advance of herwise in Block 1, by (| UE FEE and PUBLICATI rders and notification of n a) specifying a new corres | ON FEE (if requir naintenance fees wi pondence address; | ed). E II be and/or | Blocks 1 through 5 s mailed to the current (b) indicating a sepa | nould be comp correspondence rate "FEE ADI | leted where address as DRESS" for |
|--|--|---|---|--|---|--|--|--|
| IMMITERATIVE TECHNICATIONS. CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) | | | Fee(| Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing of transmission. | | | | |
| Morey B. Wild Davidson Davids 14th Floor | son & Kappel | v2009 | Lhe | Certify that this | ificate | of Mailing or Trans s) Transmittal is being ficient postage for fire ISSUE FEE address I) 273-2885, on the d | denovited with | the United an envelope ig facsimile low. |
| 485 Seventh Ave New York, NY 1 | | | | | | | (Dej | positor's name) |
| 11011 1011,111 1 | | | | | | | | (Signature) |
| | | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTORNEY DOCKET NO. | | CONFIRMATI | ION NO. |
| 10/562,520 | 04/17/2006 | | Kerstin Rosenkranz | | | 588.1062 | 7957 | |
| TITLE OF INVENTION: | PUMP WITH RADIA | L PACKING RING | | | | | | |
| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE | FEE | TOTAL FEE(S) DUE | DATE | DUE |
| nonprovisional | NO | \$1510 | \$300 | \$0 \$1810 | | 04/09/ | 2009 | |
| EXAM | EXAMINER | | CLASS-SUBCLASS | | | | | |
| TRIEU, THERESA | | 3748 | 418-104000 | • | | | | |
| I. Change of correspondence address or indication of "Fee Address" (37 CFR 1.863). Change of correspondence address (or Change of Correspondence Address from PTO/SBI/22) anached. Change of correspondence address of the Change of Correspondence Address from PTO/SBI/27) anached. The Address 'indication for "Fee Address" indication from PTO/SBI/47, two 30-92 or more creatal) attached. Use of a Customer Number is required. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON | | | or agents OR, alternative (2) the name of a single registered attorney or a 2 registered patent attornisted, no name will be | e annes of up to 3 registered patent attorneys 1 ms OR, alternativelly, the same of a single firm thaving as a member a 2 merced attorney or agent) and the names of up to tered patent attorneys or agents. If no name is 3 no name will be printed. | | | | |
| | ess an assignee is ident n in 37 CFR 3.11. Comp BNEE | ified below, no assignee pletion of this form is NO | data will appear on the part a substitute for filing an (B) RESIDENCE: (CITY | atent. If an assigne assignment. and STATE OR CO | DUNT | | _ | |
| 4a. The following fee(s) a ☐ Issue Fee | re submitted: | 4 | b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit can The Director is hereby overpayment, to Depo | se first reapply any d. Form PTO-2038 authorized to charg | y prev | lously paid issue fee ched. required fee(s), any de | shown above) | dit any |
| | SMALL ENTITY state | as. See 37 CFR 1.27. | ☐ b. Applicant is no long | ger claiming SMAL | LENT | FITY status. Sec 37 Cl | R 1.27(g)(2). | |
| interest as shown by the r | a Publication Fee (if req ecords of the United Sta | uired) will not be accepte ites Patent and Trademark | ed from anyone other than the Office. | ne applicant; a regis | tered a | utorney or agent; or th | e assignee or ot | ner party in |
| Authorized Signature | | | Date | | | | | |
| Typed or printed name | | | | Registration No | | | | |
| This collection of informa an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, V Alexandria, Virginia 223 | ation is required by 37 C iality is governed by 35 application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450. | CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR | on is required to obtain or r 1.14. This collection is est a depending upon the individe Chief Information Office COMPLETED FORMS TO | etain a benefit by th imated to take 12 m idual case. Any con r, U.S. Patent and T D THIS ADDRESS. | e publ inutes nment Traden SENI | lic which is to file (and to complete, including s on the amount of the lark Office, U.S. Dep D TO: Commissioner | by the USPTO g gathering, pro- ne you require urtment of Com- for Patents, P.O | to process) eparing, and to complete merce, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



New York, NY 10018

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|----------------------------------|----------------|----------------------|---------------------------------|------------------|--|
| 10/562,520 | 04/17/2006 | Kerstin Rosenkranz | 588.1062 | 7957 | |
| 75 | 590 01/09/2009 | EXAMINER | | | |
| Morey B. Wildes | | | TRIEU, THERESA | | |
| Davidson Davidson | | ART UNIT | PAPER NUMBER | | |
| 14th Floor 485 Seventh Avenue | | | 3748 DATE MAII ED: 01/09/200 | 9 | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 257 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 257 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) |
|-----------------|---------------------|
| 10/562,520 | ROSENKRANZ, KERSTIN |
| Examiner | Art Unit |
| Theresa Trieu | 3748 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to Sept. 29, 2008.
- 2. The allowed claim(s) is/are 11-21.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) ☐ Some* c) ☐ None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08).
- Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance

/Theresa Trieu/

Primary Examiner, Art Unit 3748

9. ☐ Other

Application/Control Number: 10/562,520 Page 2

Art Unit: 3748

EXAMINER'S COMMENT

This Office Action is responsive to the applicant's amendment filed on Sept. 29, 2008.

Drawings

The drawings were received on Sept. 29, 2008. These drawings are acceptable.

Allowable Subject Matter

Claims 11-21 are allowed.

3. The following is an examiner's statement of reasons for allowance: the prior art fails to disclose or render obvious the claimed combination including: a pump housing and a rotating group which is disposed inside the pump housing; the rotating group including a side plate mounted inside the pump housing; an axial gap being between the side plated and the pump housing; a radial packing ring being in a recess around the shaft mounted in the pump housing and the radial packing ring formed not only a radial seal between the shaft the pump housing but also an axial seal between the pump housing and the side plate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

Application/Control Number: 10/562,520 Page 3

Art Unit: 3748

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT /Theresa Trieu/

Primary Examiner, Art Unit 3748